



6T8-A

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TRIPLE DIODE—HIGH-MU TRIODE

9-PIN MINIATURE TYPE

With heater having controlled warm-up time

GENERAL DATA

Electrical:

Heater, for Unipotential Cathodes:

Voltage 6.3 ac or dc volts
 Current $0.45 \pm 6\%$ amp
 Warm-up time (Average). 11 sec

For definition of heater warm-up time and method of determining it, see sheet HEATER WARM-UP TIME MEASUREMENT at front of this Section.

Direct Interelectrode Capacitances:

	Without External Shield	With External Shield*	
Triode Unit:			
Grid to plate	1.7	1.7	$\mu\mu\text{f}$
Grid to cathode & internal shield (pin 7), and heater.	1.6	1.7	$\mu\mu\text{f}$
Plate to cathode & internal shield (pin 7), and heater.	1.2	2.4	$\mu\mu\text{f}$
Diode Units:			
Diode-No.1 plate to cathode & internal shield (pin 7), and heater.	3.8	3.8	$\mu\mu\text{f}$
Diode-No.2 plate to cathode & internal shield (pin 3), and heater.	3.8	3.8 [•]	$\mu\mu\text{f}$
Diode-No.3 plate to cathode & internal shield (pin 7), and heater.	3.4	3.6	$\mu\mu\text{f}$
Diode-No.2 cathode & internal shield (pin 3) to all other electrodes, and heater.	7.5	8.5 [■]	$\mu\mu\text{f}$
Triode grid to any diode plate	0.034 max.	0.034 max.	$\mu\mu\text{f}$

Characteristics, Class A₁ Amplifier (Triode Unit):

Plate Voltage	100	250	volts
Grid Voltage.	-1	-3	volts
Amplification Factor.	70	70	
Plate Resistance (Approx.).	54000	58000	ohms
Transconductance.	1300	1200	μmhos
Plate Current	0.8	1	ma

Mechanical:

Operating Position. Any
 Maximum Overall Length. 2-3/16"

*, •, ■: See next page.

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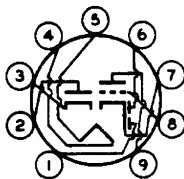
Maximum Seated Length 1-15/16"
 Length, Base Seat to Bulb Top (Excluding tip) . 1-9/16" $\pm$ 3/32"
 Diameter 0.750" to 0.875"
 Dimensional Outline See General Section
 Bulb T6-1/2
 Base Small-Button Noval 9-Pin (JEDEC No. E9-1)
 Basing Designation for BOTTOM VIEW 9E

Pin 1—Diode-No.3
 Plate

Pin 2—Diode-No.2
 Plate

Pin 3—Diode-No.2
 Cathode,
 Internal
 Shield

Pin 4—Heater
 Pin 5—Heater



Pin 6—Diode-No.1
 Plate

Pin 7—Cathode of
 Triode &
 Diodes No.1
 & No.3,
 Internal
 Shield

Pin 8—Triode Grid
 Pin 9—Triode Plate

TRIODE UNIT — AMPLIFIER — Class A₁

Maximum Ratings, Design-Maximum Values.

PLATE VOLTAGE 330 max. volts
 GRID VOLTAGE:
 Positive-bias value 0 max. volts
 PLATE DISSIPATION 1.1 max. watts
 PEAK HEATER-CATHODE VOLTAGE:
 Heater negative with respect to cathode. 100 max. volts
 Heater positive with respect to cathode. 100 max. volts

Typical Operation as Resistance-Coupled Amplifier:

See RESISTANCE-COUPLED AMPLIFIER CHART No. 7
 at front of this Section

DIODE UNITS — Three

Maximum Ratings, Design-Maximum Values:

PLATE CURRENT (For each diode) 5.5 max. ma
 PEAK HEATER-CATHODE VOLTAGE:
 Heater negative with respect to cathode. 100 max. volts
 Heater positive with respect to cathode. 100 max. volts

Characteristics (Each Unit):

Plate Voltage 5 volts
 Plate Current 20 ma

Diode Considerations:

Diode No.1, diode No.3, and the triode have a common cathode, and diode No.2 has a separate cathode. Diode No.2 (pins 2 & 3) and diode No.3 (pins 1 & 7) are recommended for use in FM detector applications, while diode No.1 (pins 6 & 7) is recommended for use as an AM detector.



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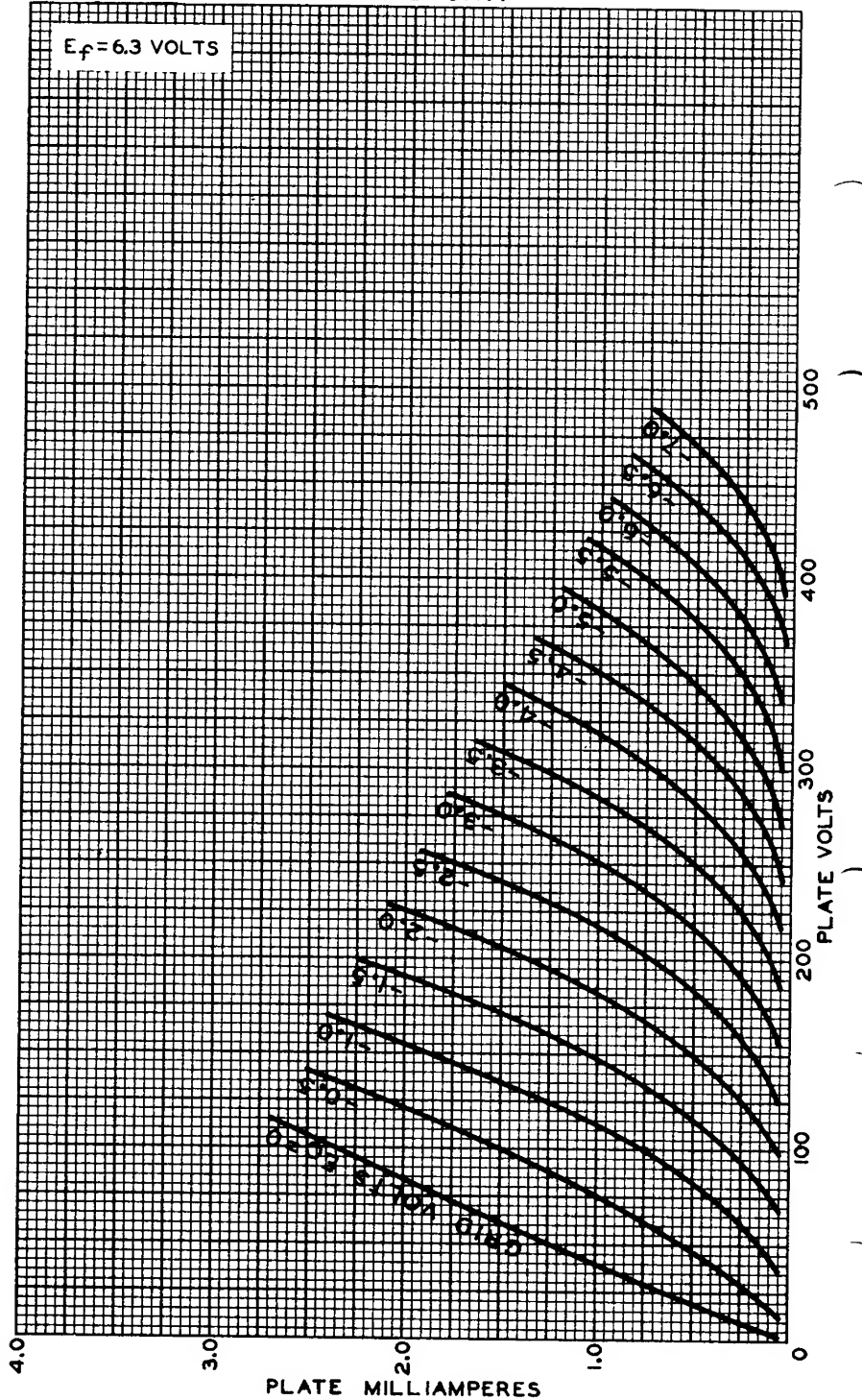
- * With external shield JEDEC No.315 connected to pin 7 except as noted.
- With external shield JEDEC No.315 connected to pin 3.
- With external shield JEDEC No.315 connected to pins 4 and 5.

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AVERAGE PLATE CHARACTERISTICS TRIODE UNIT



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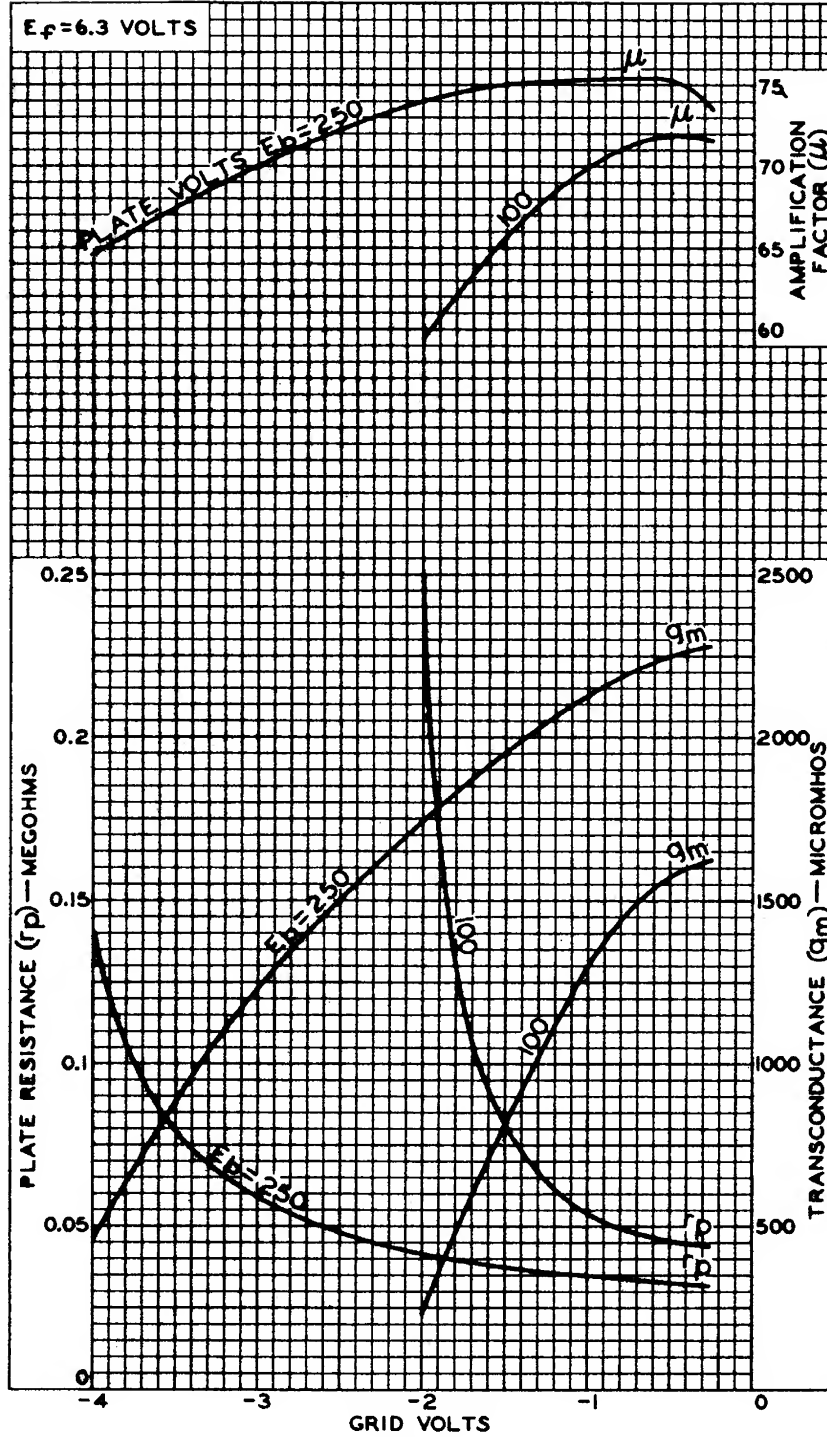
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AVERAGE CHARACTERISTICS
TRIODE UNIT

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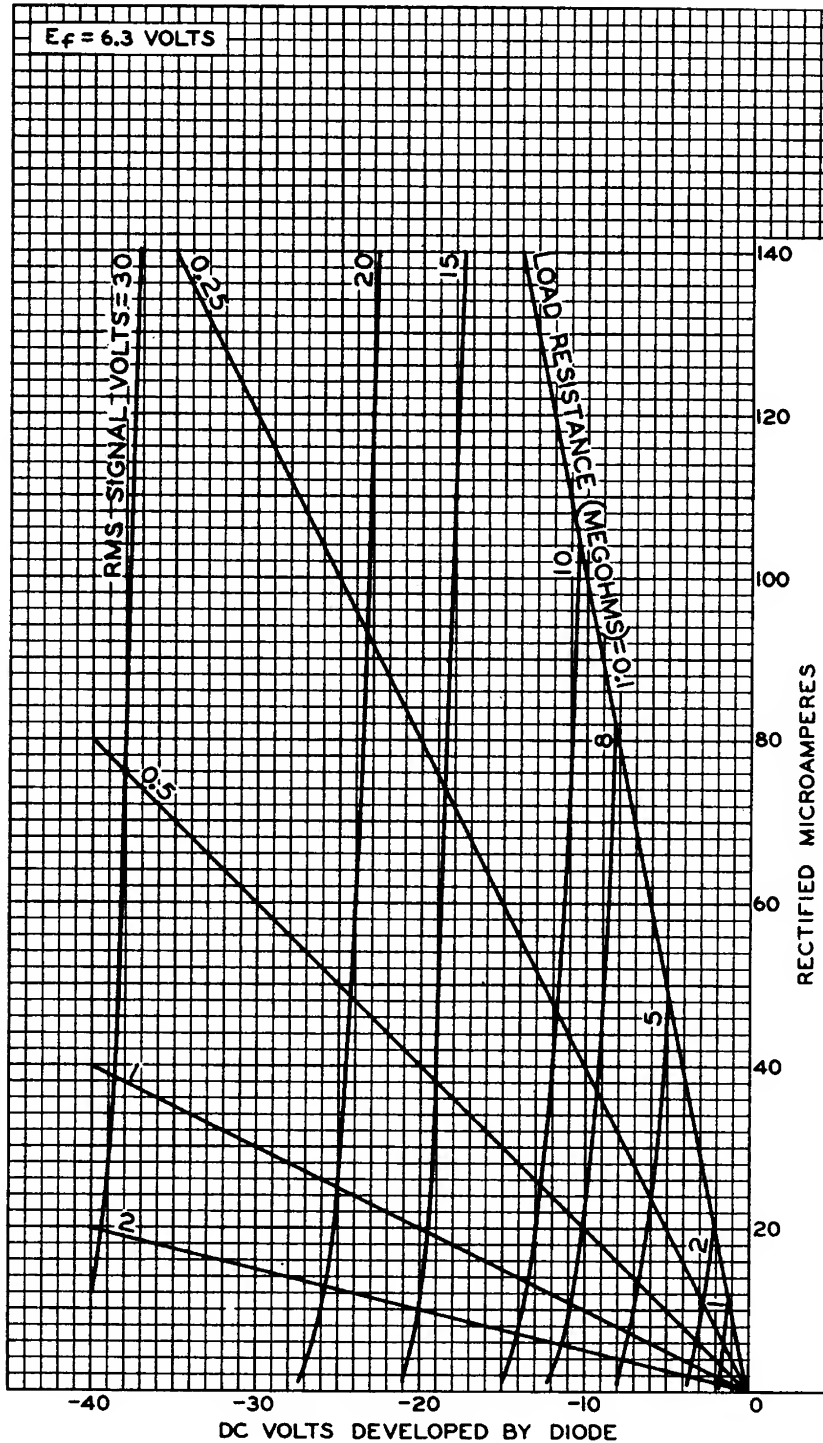


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AVERAGE CHARACTERISTICS
HALF-WAVE CIRCUIT—EACH DIODE UNIT



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